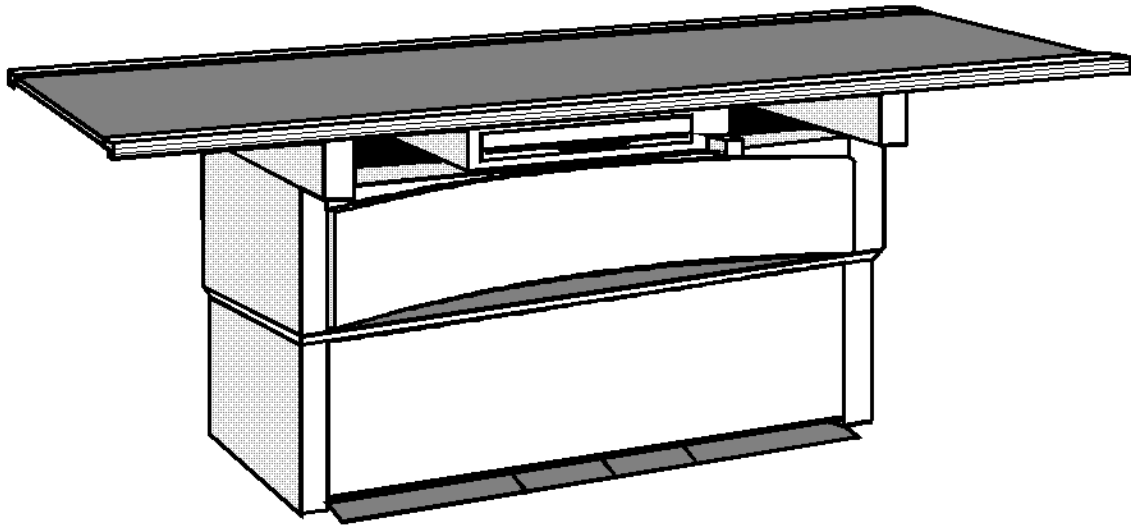
Mounting Instructions ELEVATOR-2



CE 0125

English Edition

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1. Technical data

1.1 General safety notes

In the Federal Republic of Germany, the electrical installation of rooms for medical purposes must conform to the provisions VDE Standard 0107. In all other countries the national requirements have to be observed.
Check the installation layout plan.
During the installation it is important to check that all protective ground wire connections provided by the manufacturer are properly made before the equipment is switched on.
The protective ground wires between the individual system components and the power supply have to be connected as shown in the wiring diagram.
Regulation of professional associations concerning safety and accident prevention must be observed. No work may be performed on parts carrying a voltage higher than 42 V (peak voltage). If it is necessary to turn on the power for execution of movements of the equipment in the course of installation procedure, it must be shut down immediately after completion of these movements.

1.2 Compatibility

This mounting instruction is valid for ELEVATOR-2 and all versions of them.
Bucky units made by various manufacturers can be used.
A Bucky Wall stand can be installed either on the right or left hand side of the table.

1.3 Environment conditions

for operation

Ambient Temperature:	10° C to 40° C
Relative Humidity:	20% to 80%
Atmospheric pressure:	700 hPA to 1100 hPa

Sipping conditions:

Ambient Temperature:	-25° C to 70° C
Relative Humidity:	5% to 95%
Atmospheric pressure:	600 hPA to 100 h PA

1.4 Dimensions and weights

Components	Dimensions of components	Weight of components
Table	1400x770x540 mm	215 kg
Table top	$ 2200x810x 40 mm	35 kg

	Dimensions of boxes	Weight of boxes
Table	1530x860x810 mm	260 kg
Table top	2320x930x200 mm	56 kg

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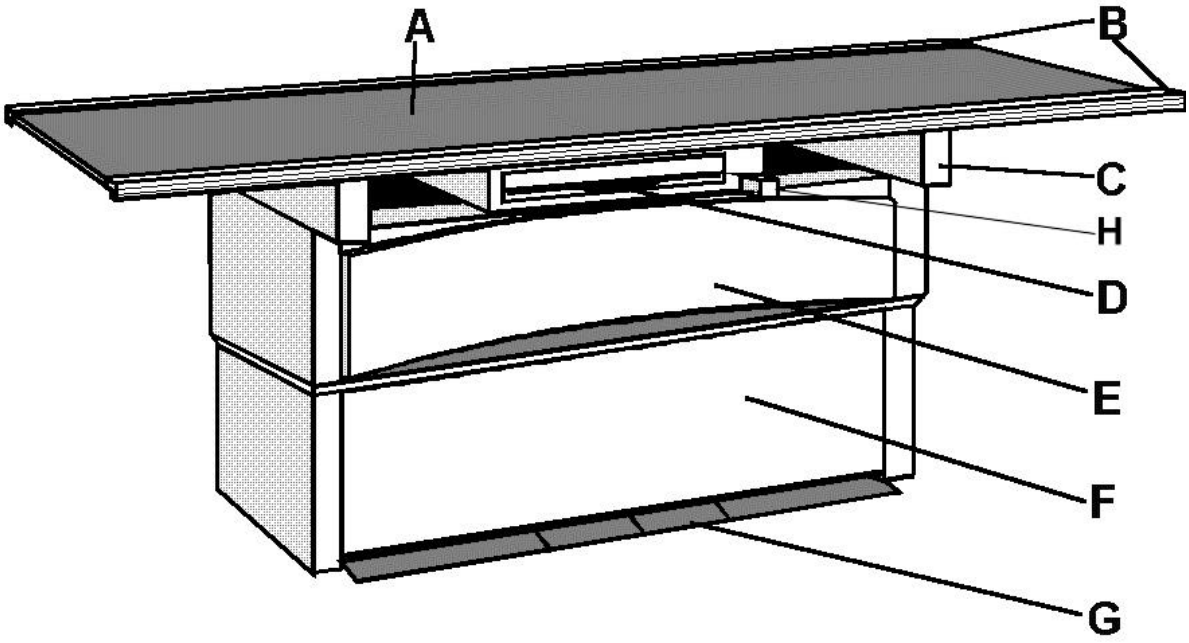
1.5 Component Designation



A Table top, floating, manually movable
B Profile rail, smooth, accepts accessories
C Table frame
D Bucky unit, movable
E Telescopic part of table base
F Table base
G Foot treadle
H Safety switch

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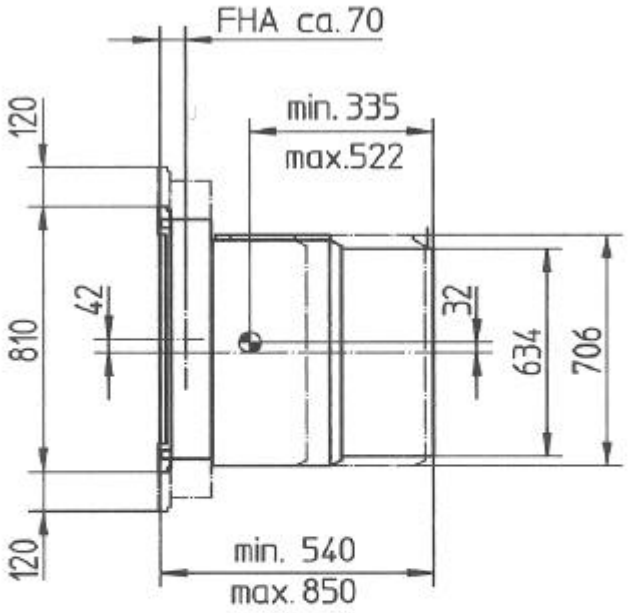
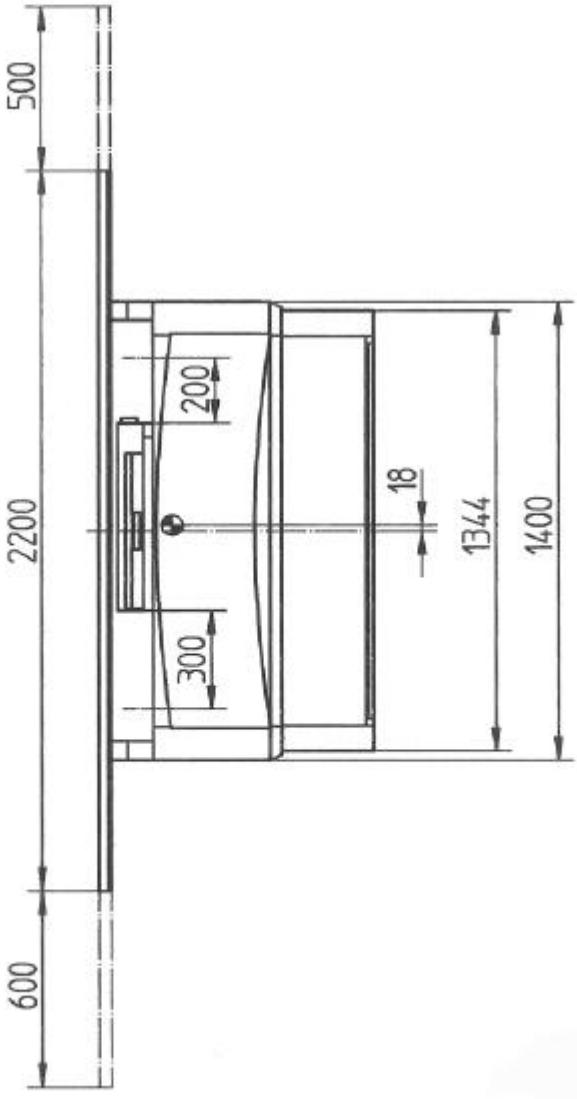
1.6 Dimensional Drawing





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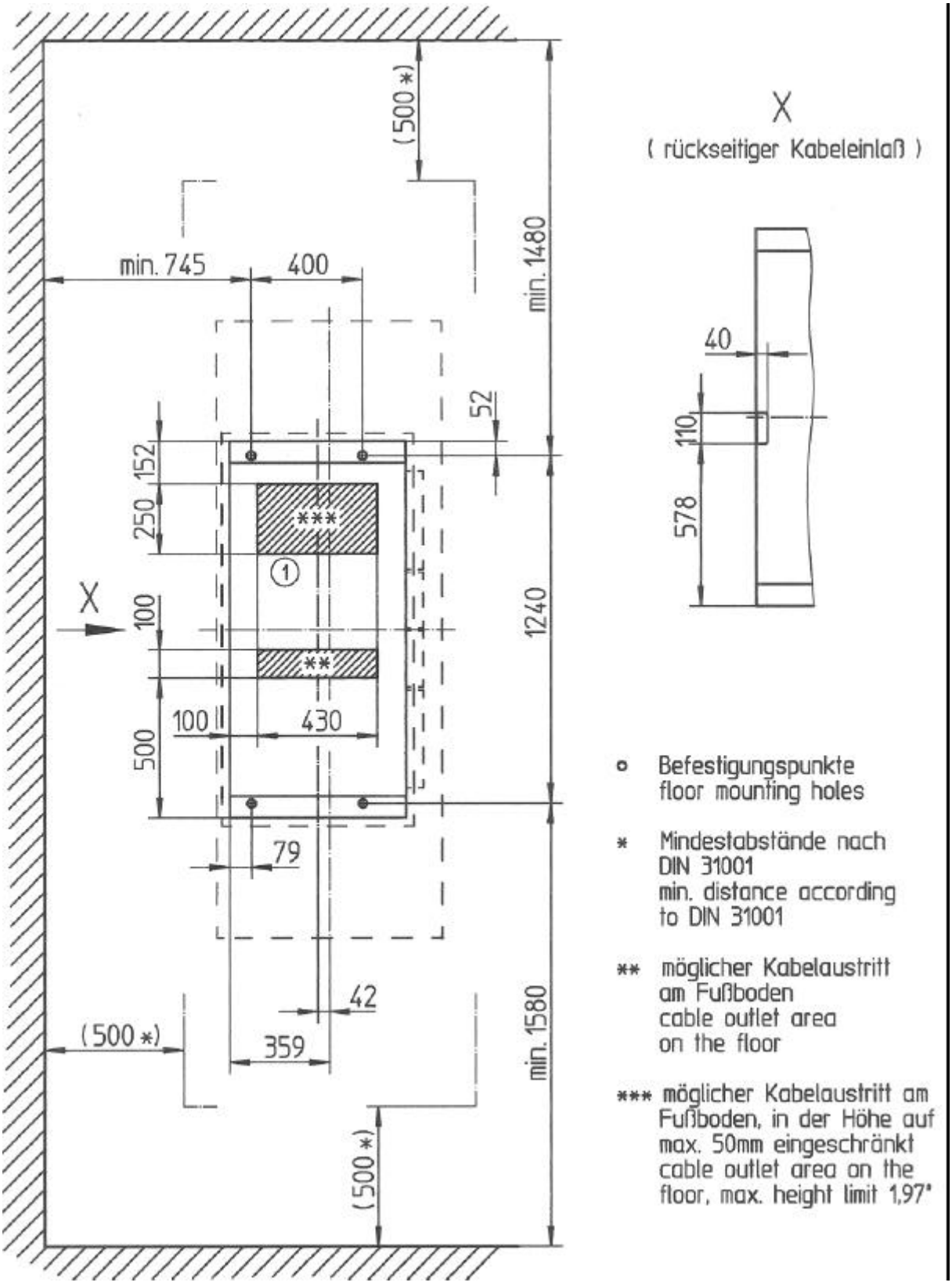
1.7 Dimensional Drawing / Floor Mounting



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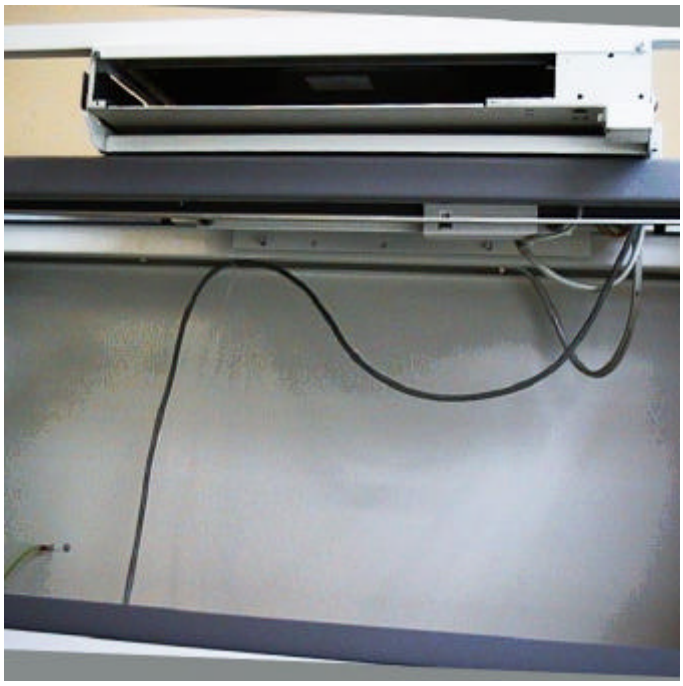
1.8 Cable routing



1.9 Constructional preparations

The electrical connections must comply with the equipment supply voltage.
For the ELEVATOR-2 only a supply voltage of 115/230 V is required and a suitable ground connection . The fastening points of the ELEVATOR-2 must support a tensile stress of 2500 N at each mounting point . E.G Liebig safety anchors S12/65 for B 150 DIN 1045 concrete floor (included fastening material).
Prepare the floor mounting holes with a 12 mm/.472 in. drill according dimensional drawing 1.7.
The power cable of the ELEVATOR-2, the cable for the Bucky and the Ion chamber must be routed depending on the version to the interface box in the table base or all the way to the Bucky according to the installation plan.

1.10 Measuring tool required

Machinist water level

1.11 Special tools required

Rotary hammer
Masonry drill 12 mm

1.12 Power supply data

Power supply:	115/230 V
Frequency:	50 / 60 Hz
Rated current:	10 / 6 A
Rated power supply voltage:	0,7 VA

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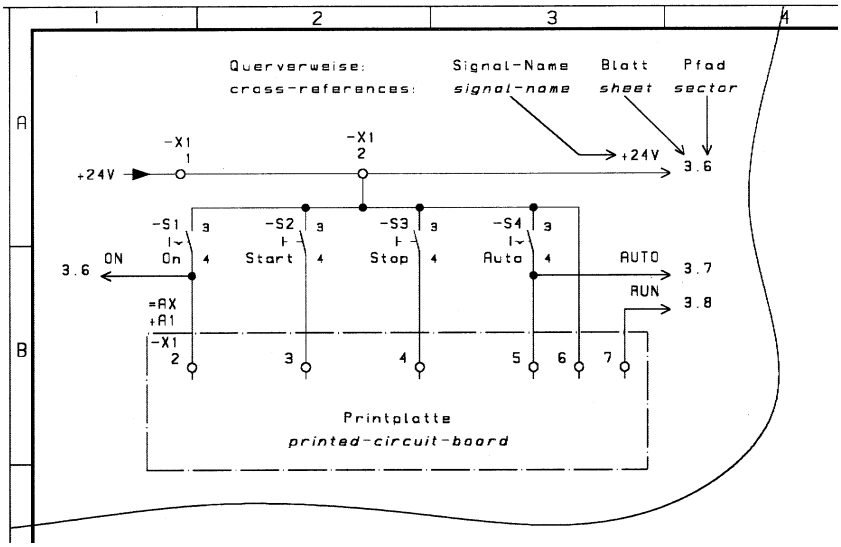
1.13 Schematics sheet 1

1.13.1 Description at Schematics

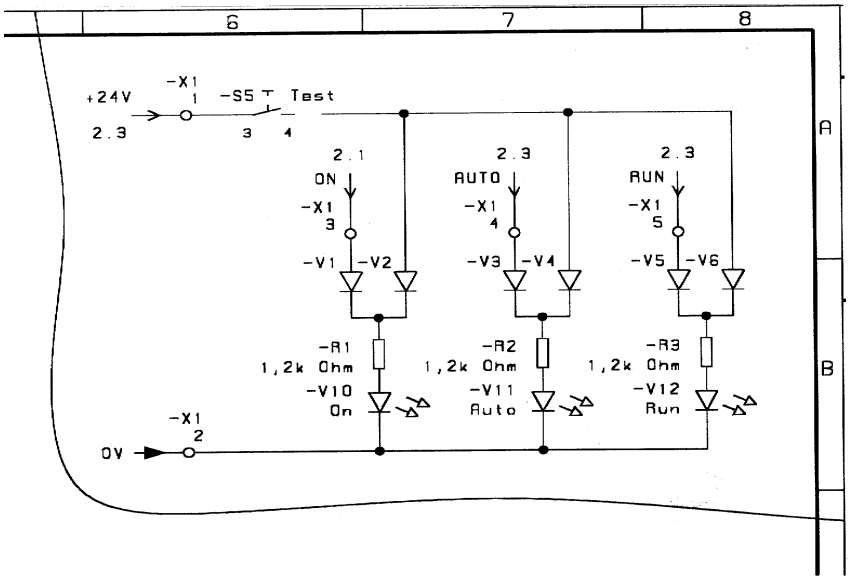
..... Schematics sheet 2

= AX control panel
= Unit, Indication



..... Schematics sheet 3

= AX control panel
= Unit, Indication



1.13.1 Table of contents at Schematics

Sheet 2	Schematics Main transformer	=AF
Sheet 3	Schematics	=AF
Sheet 4	Wiring diagram	=AF

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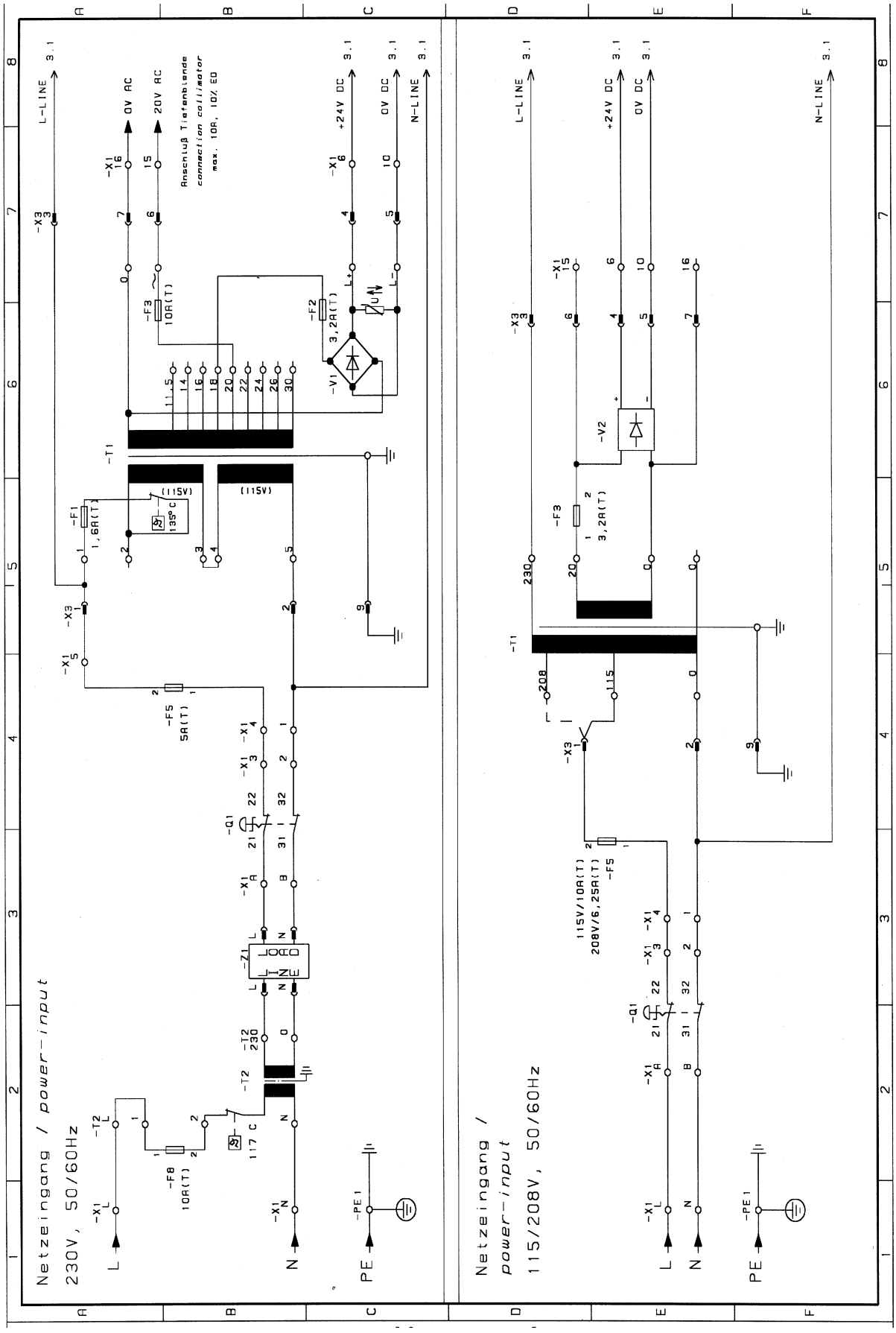
1.13 Transformer Diagram Sheet 2



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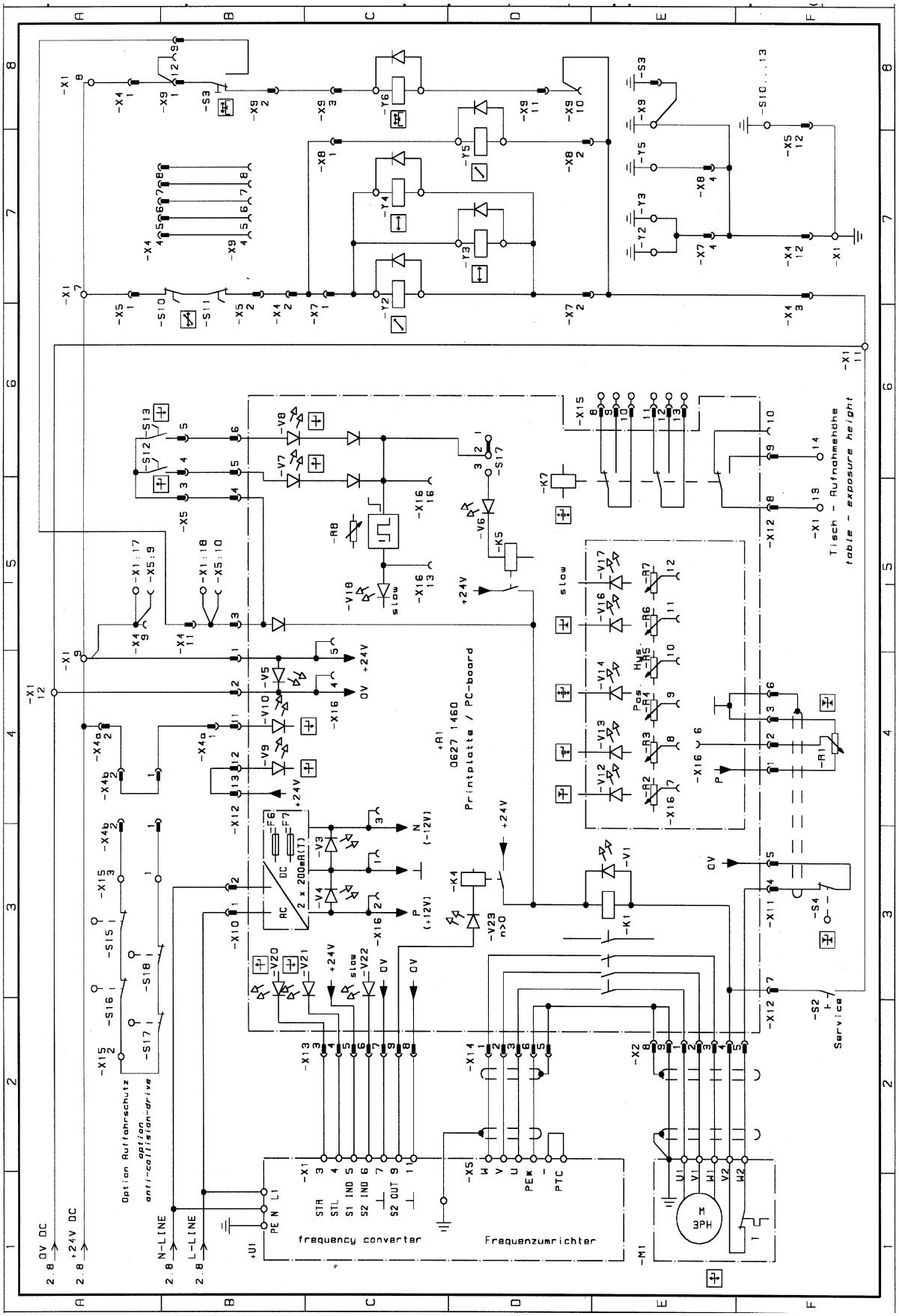
1.13 Schematics sheet 3



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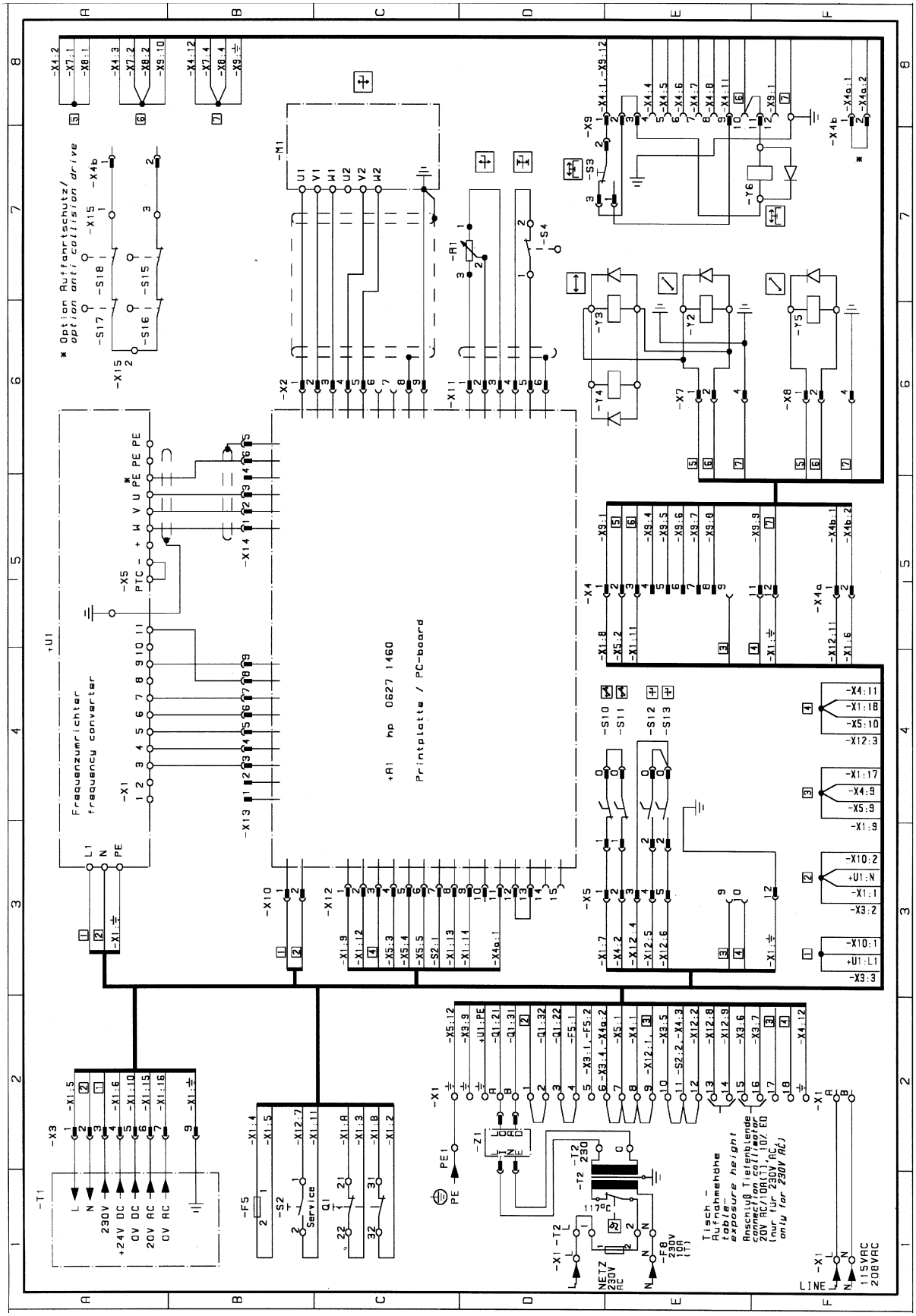
1.13 Wiring Diagram Sheet 4



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1.14 Components Numbers and Designation

No.	Designation
=AF+A1	PC Board
+U1	Frequency Converter
-F1	Fuse transformer primary
-F2	Fuse 24 V
-F3	Fuse 20 V AC
-F4	Fuse 130 V
-F5	Fuse mains supply
+A1-F6	Fuse +12 V DC
+A1-F7	Fuse -12 V DC
-F8	Fuse isolating transformer
+A1-K1	Motor conductor
+A1-K2	Relay motor contactor
+A1-K4	Relay n>0
+A1-K5	Relay safety switch
+A1-K6	Relay intermediate stop
+A1-K7	Relay exposure height
-M1	Vertical drive motor
-PE1	Main ground terminal
-Q1	Service switch
-R1	Height potentiometer
+A1-R2	Adjusting screw disconnect vertical top position
+A1-R3	Adjusting screw intermediate stop
+A1-R4	Adjusting screw exposure position
+A1-R5	Adjusting screw exposure position hysterese
+A1-R6	Adjusting screw disconnect lower table position
+A1-R7	Adjusting screw slow motion range
+A1-R8	Adjusting screw slow motion time
-S2	Service - switch
-S3	Switch Bucky brake
-S4	Safety limit switch
-S5	Safety push button
-S10	Foot pedal switch for table top brake
-S11	Foot pedal switch for Table top brake
-S12	Foot pedal switch for vertical upwards
-S13	Foot pedal switch for vertical downwards
-S15	Switch for anti collision drive
-S16	Switch for anti collision drive
-S17	Switch for anti collision drive
-S18	Switch for anti collision drive
-T1	Mainstransformer
-T2	Transformer for electronics
+A1-V1	LED motor contactor
+A1-V3	LED -12 V DC
+A1-V4	LED +12 V DC
+A1-V5	LED +24 V DC
+A1-V6	LED safety switch

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+A1-V7 LED Foot pedal switch vertical up
+A1-V8 LED Foot pedal switch vertical down
+A1-V9 LED limit switch vertical up
+A1-V10 LED limit switch vertical down
+A1-V12 LED disconnect vertical top
+A1-V13 LED intermediate stop
+A1-V14 LED exposure height
+A1-V16 LED disconnect vertical upwards
+A1-V17 LED slow motion range
+A1-V18 LED slow motion time
+A1-V20 LED frequency converter vertical upwards
+A1-V21 LED frequency converter vertical downwards
+A1-V22 LED frequency converter slow motion
+A1-V23 LED frequency converter n>o

-X1 Terminal strip
+A1-X2 Motor plug
-X3 Transformer plug
-X4 Motor drive plug
-X4a Plug anti collision drive
-X4b Plug anti collision drive
-X5 Plug Foot pedal switch
-X7 Plug left lateral brake
-X8 Plug right lateral brake
-X9 Plug Bucky carriage
+A1-X10 Plug mains input
+A1-X11 Plug height measuring unit
+A1-X12 Plug for control signal
+A1-X13 Plug for U1 control signal
+A1-X14 Plug for U1 motor voltage
-X15 Plug for Combi-Elevator
+A1-X15 terminal block for anti collision drive
+A1-X16 Test socket
+A1-X16:1 Check point ground
+A1-X16:2 Check point +12 V DC
+A1-X16:3 Check point -12 V DC
+A1-X16:4 Check point 0 V DC
+A1-X16:5 Check point +24 V DC
+A1-X16:6 Check point actual value height measuring-R1
+A1-X16:7 Check point nominal value disconnection top
+A1-X16:8 Check point nominal value intermediate stop
+A1-X16:9 Check point nominal value exposure Item stop
+A1-X16:10 Check point nominal value exposure Item hyst.
+A1-X16:11 Check point nominal value disconnection bot.
+A1-X16:12 Check point nominal value slow motion range
+A1-X16:13 Check point time impulse exposure
+A1-X16:14 Check point memory signal exposure position
+A1-X16:15 Check point time impulse exposure position
+A1-X16:16 Check point Foot pedal switch vertical up- or downwards
-Y2 Brake table top lateral left
-Y3 Brake table top longitudinal
-Y4 Brake table top longitudinal
-Y5 Brake table top lateral right

-Z1 Filter

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2. Mounting

2.1 Preparing the Floor

Drill holes for the floor mounting of the equipment as shown in dimensional drawing, page 6, with a 12 mm/.472 in. drill. To ensure full range movability of the system components, keep the minimum distances indicated. The bolts must be suitable for 2500 N tensile stress at each mounting point. E.G. Liebig security anchors S12/65 N for DIN 1045 concrete floor.
Remove the vinyl or carpet floor covering around the mounting points for the base of the unit. Lay floor covering shims (installation material, included with the shipment) of the same thickness as the original floor covering at the mounting points.

2.2 Uncrating and Preparing the Table

Remove packing material. Make a provisional power connection with the mains cord (Fig. 1,Item 6) and drive the table to maximum height. Take off plastic caps (Fig.1, Item 1). Loosen socket cap screws underneath with a 4 mm Socket wrench. Swivel the top cover (Item 2) forward and lift off by pulling upward.

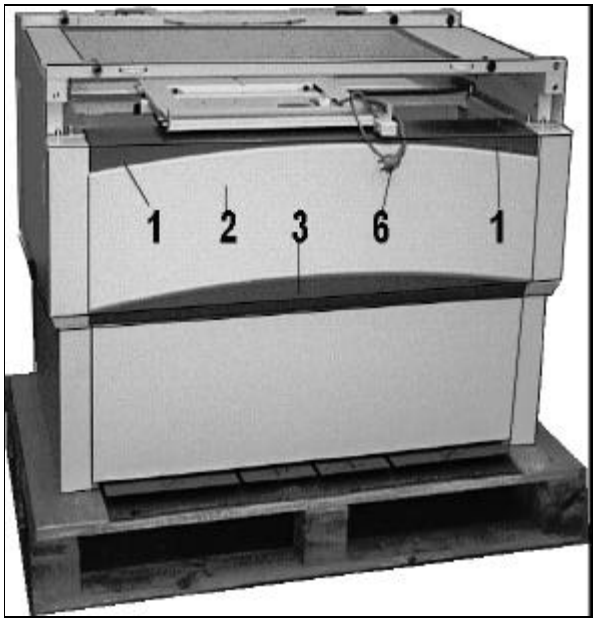

Fig. 1

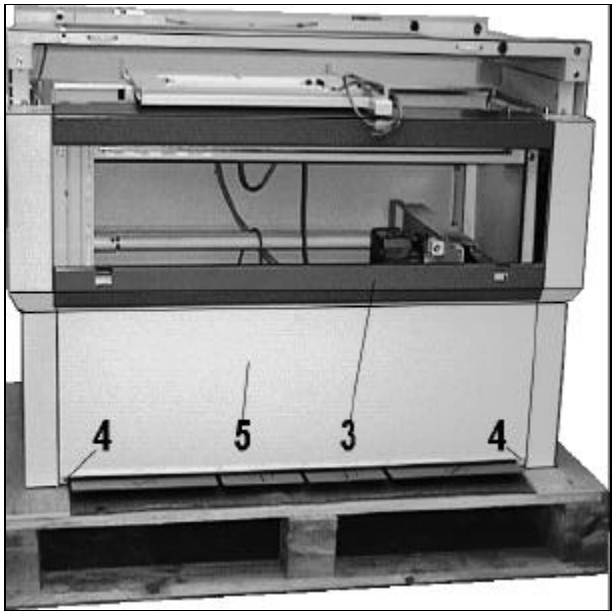

Fig. 2

Remove both Socket screws and connecting bar (Item 3). Loosen Socket screw (Fig. 2Item 4). Swivel the cover (Item 5) at the bottom forward and pull out downward.

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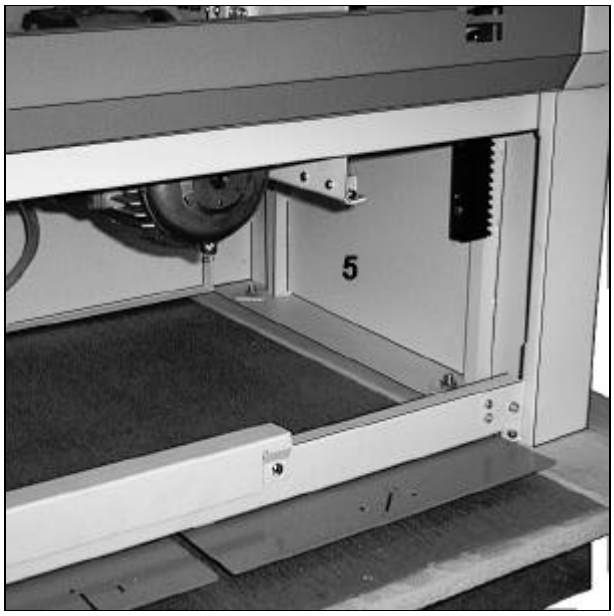

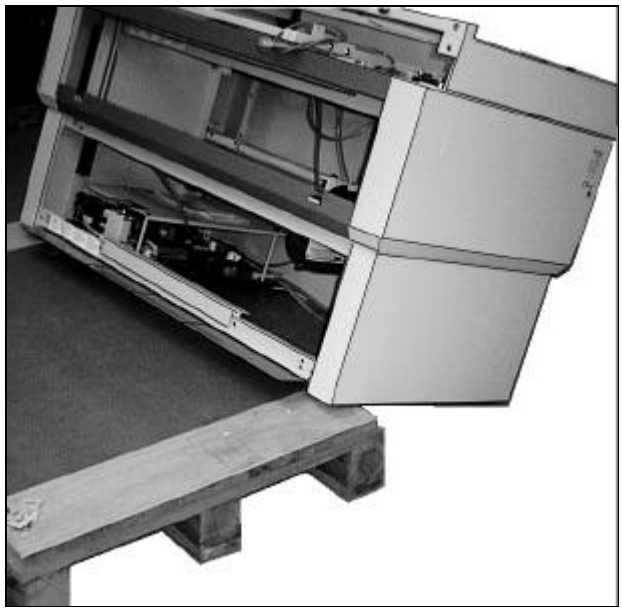

.

Fig. 3 Fig. 4

Remove shipping screws (Fig.3, Item 5) from the pallet by pushing them to the floor. Slide the table to the back of the pallet (Fig. 4). Tilt table to the back and pull out the pallet underneath. Place Table carefully on the floor.

2.3 Table Installation and Leveling

Lift the table over the prepared floor mounting holes. Prepare heavy-duty anchors as illustrated (Fig.5). Pass anchor sleeves and bolts through table base mounting holes.

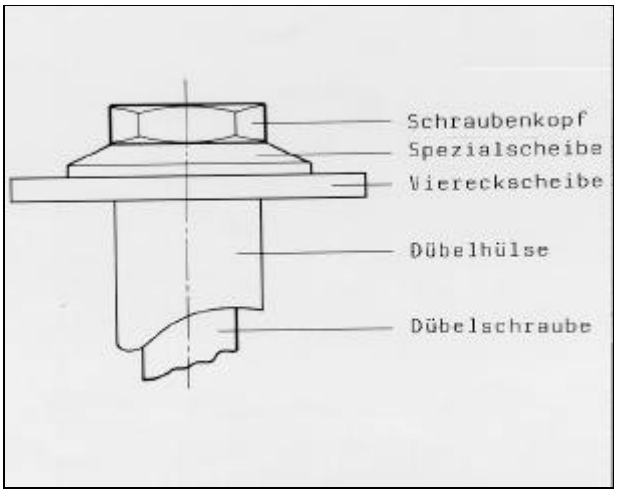

Fig. 5

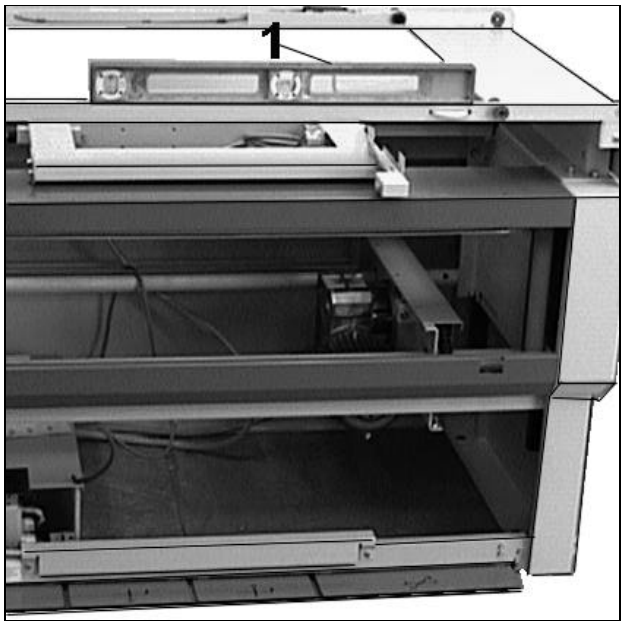

Fig. 6

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Check table base with water level (Fig.6, Item 1and Fig.7, Item 2) and compensate with shims, if necessary (Fig. 8, item 1, included with the shipment). Tighten mounting bolts.

CAUTION:
Be careful not to distort the table base in any direction.

Fig. 7

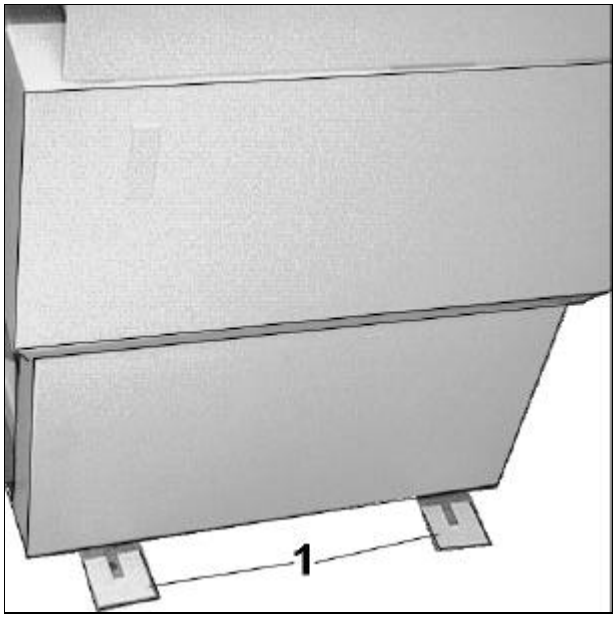

Fig. 8

2.4 Bucky Installation

NOTE:
Buckys of all leading manufacturers can be installed. The unit has been prepared according to the order. The installation material required is included with the shipment.

Insert the Bucky into the Bucky carriage (Fig. 9, Item 7). The cassette opening must face front, i.e. direction of the operator. Connect the Bucky cable and the Ion chamber cable according to the instructions of the Bucky manufacturer.

Bucky Unit P

Fasten with 2 screws each (Fig.9,Item 3) at right- and left-hand side of Bucky. Mount trim covers as shown in Fig 9, item 4 with 3 screws and washers.

Philips:

Fasten with 2 screws each and washers (Fig.9, Item 3) at the right- and left hand side. Place trim covers on edges wallside and operator side (Fig.9, Item 4) and fasten from above with 3 screws each.

Siemens:

Fasten with 4 screws and washers (Fig.9, Item 3) at right- and left hand side .

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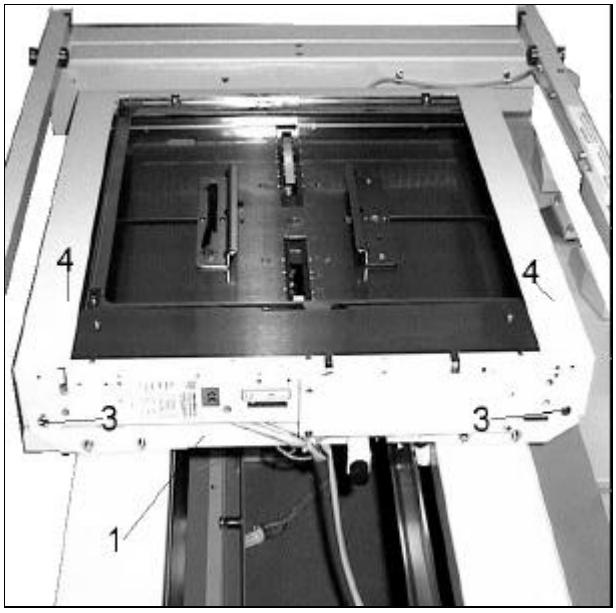

Fig. 9

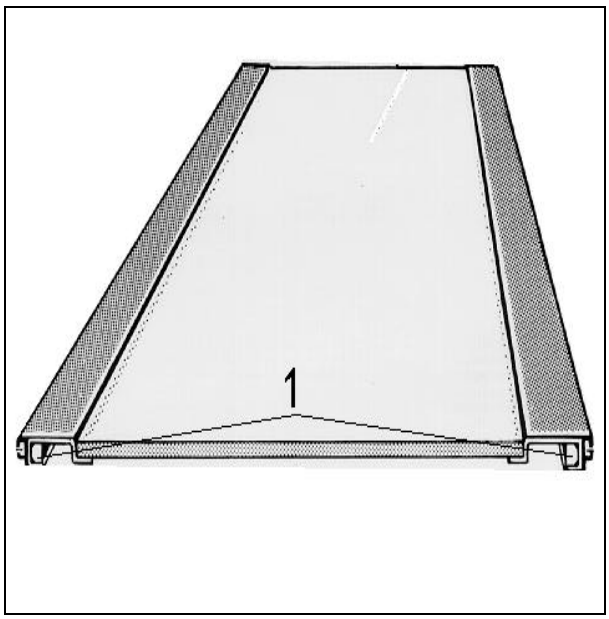

Fig. 10

2.5 Mounting of Table Top

Note: If there are less than 2900 mm from the middle of table to a wall available, please mount the table top according section 2.5.1 .
Unpack table top.
Unscrew bumper stops (Fig.10, Item 1) from either the right or the left end of table top .

Slide table top from the side onto table frame (Fig.11, Item 2).
Note:
Push down the brake solenoids (Fig.12, item 1) while sliding on the table top.
Remount the bumper stops (Fig. 10, item 1).

To protect the table top surface during ongoing set up of unit, place the packing material (cardboard) on the table top.

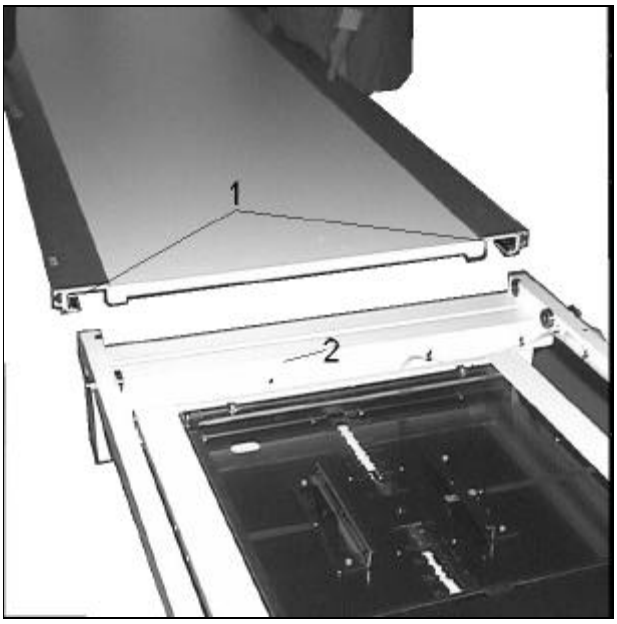

Fig. 11

Fig. 12

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2.5.1 Mounting of Table Top in Small Rooms

Unscrew bumper stops (Fig.10, Item 1) from both ends of table top. Remove the two bearings (Fig. 13, Item 1and 2) from the table frame . Place table top on table frame. Lift table top on operator side to an angle of about 45 and hook profile rail on wallside around the two plastic rollers. Then lower table top on operator side carefully. Slide table top sideways in order to remount the bearings. Readjust bearings (eccentrics) for optimal table top movement. Refasten bumper stops (Fig. 10, item 1) to table top ends.

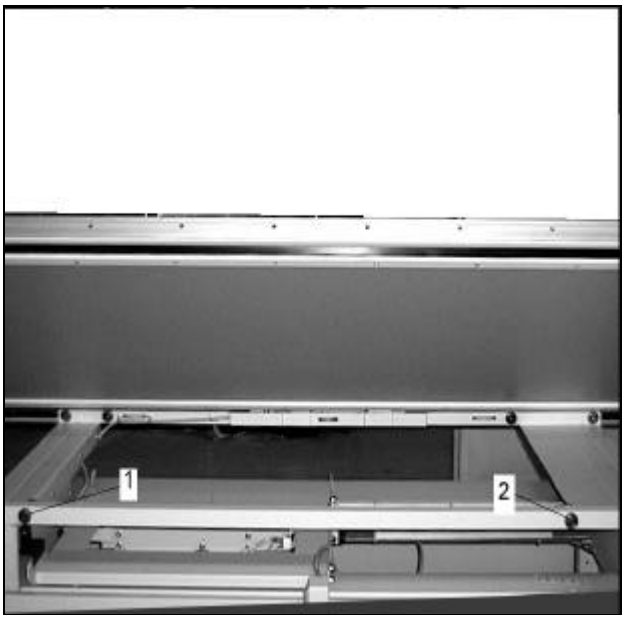

Fig. 13

2.6 Function checking

Switch on generator and check all functions. If necessary make adjustments according to chapter 3. Adjustment.

2.7 Mounting of Trim Covers

Install lower cover (Fig.2, Item 5), connecting bar (Item 3) and upper cover (Fig.2, Item 2).

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3. ADJUSTMENTS

3.1 Exposure Height Adjustment

To adjust exposure height, remove covers (Fig. 1/Item 2) and (Fig. 2/Item 5).

Drive to the pre-set exposure position, then drive to the desired exposure position.
To change the pre-set value turn on Adjusting screw -R4: cw = upwards, ccw = downwards.
The new exposure position is reached when LED -V14 lights up.
The nominal value can be measured on -X16:9; approx. 8,6 V
Drive several times to exposure height and check exposure position; readjust if necessary.
A difference in the exposure height when driving from top to bottom or bottom to top can be adjusted on Adjusting screw -R5. Switch on the unit and perform functional checking as described under 4.2

3.2 Adjustment of Electronics

Adjust height potentiometer -R1 in that way that you have a half turn left of the potentiometer in the top and in the bottom position.

Table adjustment max. at the top:

Drive the table upwards and stop just before reaching the safety limit switch -S4. Make adjustment with Adjusting screw -R2 so that LED V12 is just about to light up. Drive to upper position several times and correct settings - if necessary - on Adjusting screw -R2 . (cw = upwards, ccw = downwards). The nominal value can be measured on -X16:7; approx. 11V.

Table adjustment max. at the bottom:

Drive the table downwards and stop just before reaching the safety switch limit switch -S4. Make adjustment with Adjusting screw -R6 so that LED V16 is just about to light up. Drive to bottom end position several times and correct settings - if necessary - on Adjusting screw -R6 . (cw = upwards, ccw = downwards). The nominal value can be measured on -X16:11; approx. 1,65V.

Exposure height:

Drive to the preset exposure position, then drive to the desired exposure position.
Change setting value on Adjusting screw -R4: cw = upwards resp. Ccw = down wards.
LED -V14 is showing the reached exposure position.
The nominal value can be measured on -X19:9; drive to approx. 8,6 V exposure height several times and control exposure position; readjust if necessary.
The different exposure height when driving upwards resp. downwards can be balanced on Adjusting screw -R5.
The nominal value can be measured on -X19:10; approx. 0,18V

Slow motion range adjustment

On Adjusting screw -R7, the time for the slow down or slow stop speed for the table drive and for the exposure height can be adjusted. cw = increase of slow down speed; ccw =

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decrease of slow down speed. -V17s illuminated during slow down speed. Check Point: -X16:12; approx. 0,55 V

Slow motion time adjustment

If table movement is actuated it will start with a slow motion speed; after the pre-set time the movement will go to fast motion. The time can be adjusted on Adjusting screw -R8. cw = longer period of time ccw = shorter period of time. Slow motion period is shown on LED -V18. Check point: -X16:13; approx. 0,5 sec.

3.3 Adjustment of the Bucky in lateral direction

Loosen the screws (Fig. 9/ Item 1) from the four mounting brackets. Adjust the Bucky in lateral direction if alignment to X-ray field is off and fasten afterwards the four screws again.

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4. TECHNICAL MAINTENANCE

4.1 Mechanical and Electrical Checks

NOTE:
The maintenance schedule described below is to be accomplished at 12- month intervals. Whenever in the course of these procedures, parts of the unit must be moved electromotively, or if functional Checks require power, disconnect the power as soon as the part has reached the new position, or after the appropriate functional test sequence. Defective parts must be replaced by genuine spare parts according to spare part lists enclosed.
Use only non-acid grease for maintenance. Do not grease or oil ball bearings with sealing washers.

Preparations: Check the Elevator-2 of damages or missing parts.
Check all cables upon damage especially on the connectors and strain relive points.
If necessary replace or repair as far as possible after consultation with the customer.
Check cable loops of sufficient length.
Check all covers and trim covers. If necessary replace damaged parts or make arrangement for exchange.
Check travelling range of equipment for obstacles. Inform the user .

Tools: Normal assembly tools, torque wrench, water level, spring scale, feeler gauge, cleansing agent, grease.

Task: Switch off equipment
Dismount bumper and stop (Fig.15/Item 1+2) at either end of the table top .

Fig. 15

Fig. 16

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Take out table top and lay aside securely.
Dismount front cover (Fig. 16/Item 1+2)
Remove cover left and right (Fig. 17/Item 1).

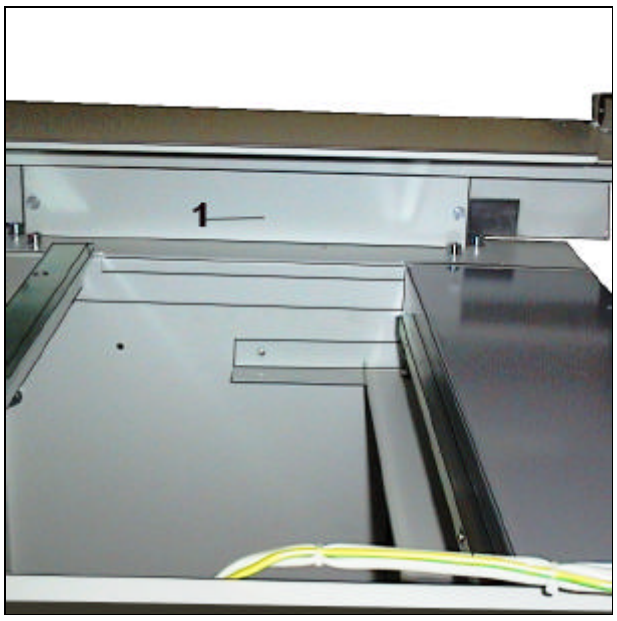

Fig. 17 Fig. 18

Floor mounting: Check firmness of anchor bolts. Tighten, if loose, at a torque of 50 Nm (5 mkp).

Bucky carriage: Check performance of Bucky carriage over entire travel range.
Running noise ?
Determine defective bearings. Replace if necessary.
Clean guide rail and bearings and grease lightly.
Check the gap of the bearings and if necessary adjust eccentric bearing (Fig. 18/Item 1).
Proper adjustment: The bearings can still be rotated by hand.
Check bumpers (Fig. 18/Item 2) on firmness and damage.
Switch-on equipment. Check function of brake (Fig. 18/Item 3) and adjust if necessary.

Table frame: Remove the Covers (Fig. 17/Item 1) on the left and right side.
Clean left and right guide rails (Fig. 19/Item 1) and grease lightly.
Switch-on equipment. Check performance of lateral brakes (Fig. 19/Item 2). Adjust if necessary.
Check bumper stops on both sides (Fig. 19/Item 4) on firmness and damage. Remount the Covers (Fig. 17/Item 1) on the left and right side.

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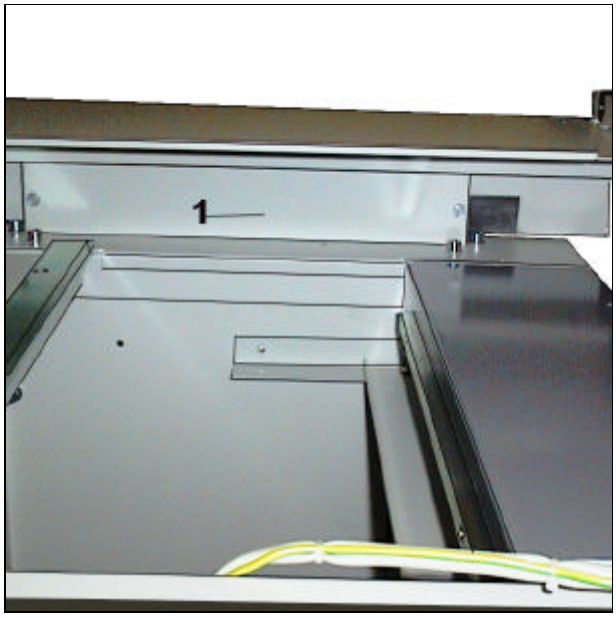

Fig. 19

Fig. 20

Table top:

Remove table top.
Check plastic rollers (Fig. 20/Item 5) for trace of wear. Replace if necessary.
Clean and check all ball bearings for table top movements on smooth running and damage. Replace and grease if necessary.
Clean guide profiles of the table top.
Insert table top. Move over entire travel range. Running noise?
Smooth running? Adjust bearings with eccentric (Fig. 20/Item 6) if necessary.
Switch-on equipment. Check performance of longitudinal brake (Fig. 20/Item 7).
Replace brake magnet if necessary.

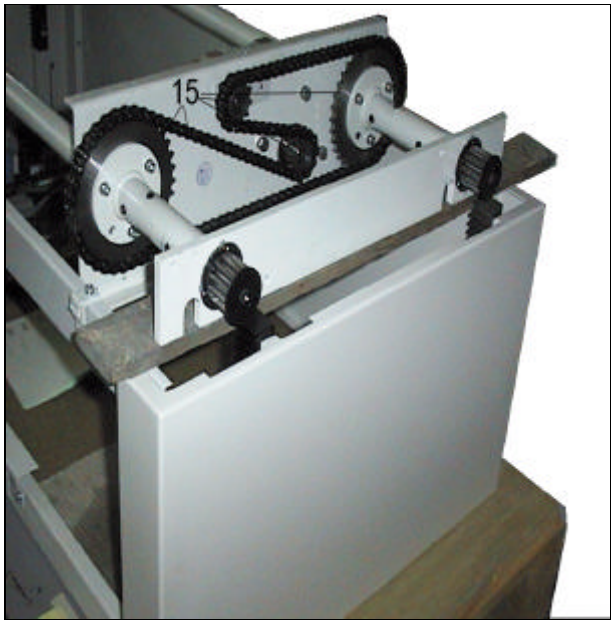

Fig. 21

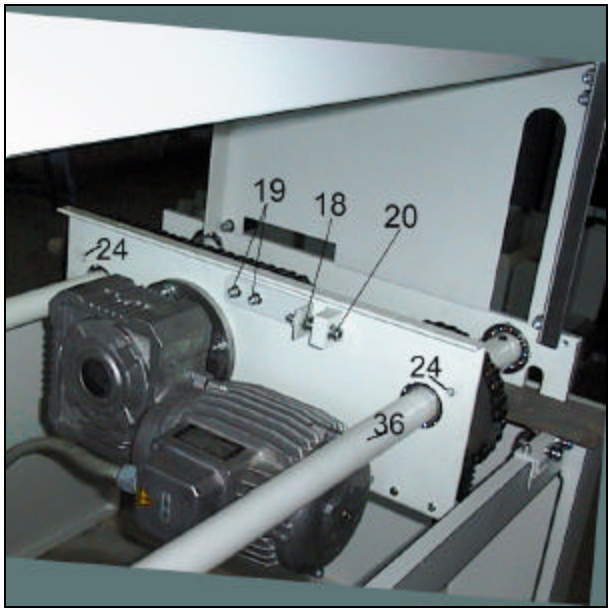

Fig. 22

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Remount bumper and stop (Fig 15/Item 1+2) to table top.

Hoisting motor: Check chain and sprocket wheels (Fig. 21/Item 15) for trace and wear. Perform a test run if necessary.
Check chain tension. It should be taut. To adjust: Loosen counter nut (Fig. 22/Item 18). Loosen screws (Item 19).
Adjust chain with clamping stud (Item 20). Counter lock clamping stud.
Tighten screws (Item 19)
Check all motor suspension bolts on firm seating.

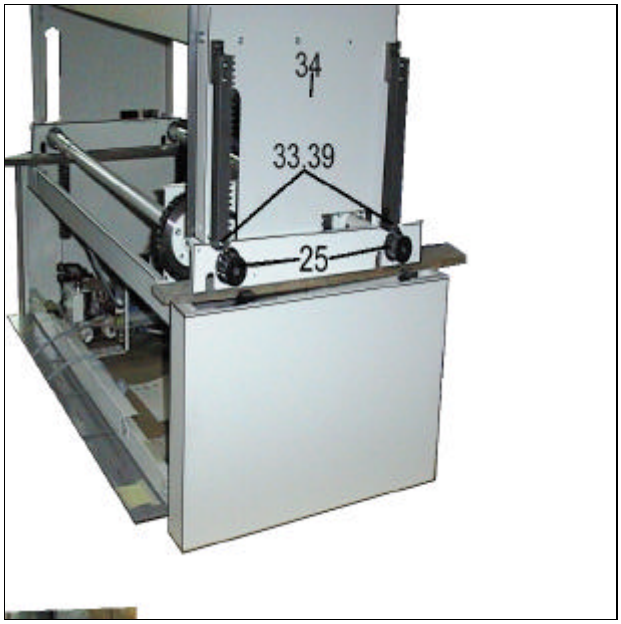

Fig. 23

Fig. 24

Toothed Racks, Drive Shafts, Pinions:

Switch on the unit. Run through entire travel range several times.
Listen for hard knocking noises. Switch-off the unit. Check the 8 racks (Fig. 23/Item 25) and 4 pinions for wear. Use a mirror for visual checking.
Any hard knocking running noise or visible damage ?
If not, regressed toothed racks and all bearings
If there are knocking noises or mechanical damage:
Remove the right and left plug.
Remove 4 socket cap screws on both sides (Fig. 24/Item 28).
Lift off table frame (Fig. 24/Item 29).
Remove plug (bottom of Bucky carriage) (wallside).

Remove plug on component board.
Remove cable strain relieve.
Lift off outer jacket (Fig. 22/Item) by pulling upward uniformly. Do not use force !

Caution: The Bucky carriage is not locked !
Remove 4 screws (Fig. 23/Item) and bushings.
Crank up jacket support (Fig. 23/Item) all the way up and lift it off with drive assembly (Fig. 22/Item). Arrange wooden bars (Fig. 22).

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Place support / drive assembly on bars.
Continue to crank up the jacket until it can be removed from drive assembly.
Toothed racks, pinions and drive are now fully accessible. Replace defective parts.

Note:

Before removing the chain or the sprocket wheels, insert the index pins (Fig. 22/Item) into drilled holes (Fig. 22/Item) on motor support and sprocket wheel flange.

Do not forget to remove the index pins afterwards.

Reassemble:

Place the jacket support (Fig. 23/Item) with toothed racks on to the pinions.
Crank in the jacket support until a measure of 12 mm (Fig. 26, detail) is reached.
Attach complete support/drive assembly to toothed racks of table base frame (Fig. 23).
Crank in assembly approx. 10 cm. Insert 4 bushings (Fig. X/Item 39) and fasten 4 screws (Fig. 23/Item 33).

Component board:

Disconnect power (fuse).
Check with voltmeter that power is really off !
Tighten screws of all wire connections.
Check all components on firm seating. Tighten screws of necessary.

Note:

For better access the component board (Fig. 25/Item) together with the foot switches (Item) can be pulled out.
For this, loosen 2 screws (Fig. 25/Item 43) and pull out forward (arrow) the complete component group.

General:

Reinstall covers
Clean the unit
Connect the power

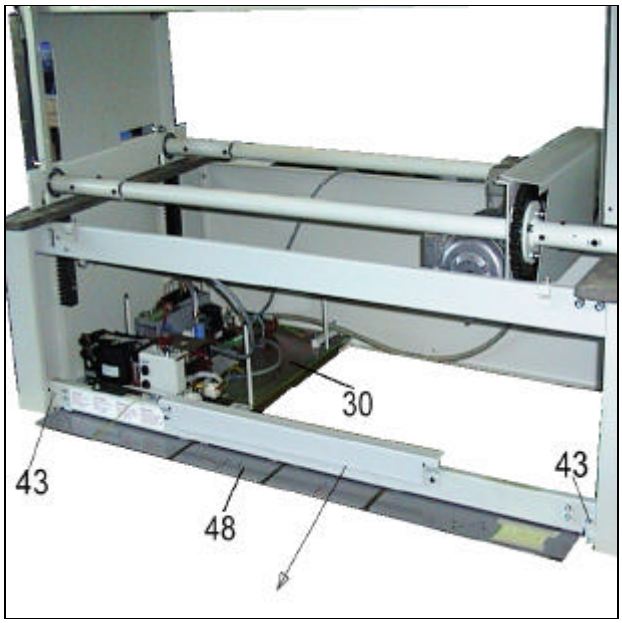

Fig. 25

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4.2 Functional Checks

Vertical Travel Mechanism:

- Turn on unit. Check performance of raising/lowering mechanism over entire travel range:
- Automatic stop in bottom/top end positions as well as in pre-set exposure position?
- Soft start and slow down of hoisting motor?
- Accurate performance of Foot switch ?
- Accurate performance of safety switch?
- Proper spring suspension of switches?
- No brushing of outer jacket against base panelling?
- No automatic lowering at load?

Table Top:

- Check performance of floating table top over entire travel range both longitudinally and transversely:
- Moving smoothly? Running without noise?
- Buffered stops for longitudinal/lateral movements?
- No tendency to self-positioning?
- Accurate braking in working position?
- Accurate releasing of brake?
- Accurate performance of foot switch resp. of safety switch?
- Proper spring suspension of switches?

Bucky Carriage:

- Check performance of Bucky carriage over entire travel range.
- Moving smoothly?
- Running without noise?
- Accurate breaking in any working position?
- Accurate releasing of brake?
- Easy cassette insertion?
- Easy operation of cassette clamping device?

Exposure Release:

- Drive to exposure position. Be careful to observe radiation protection measures.
- Trigger exposure.
- Exposure taken ?
- Change height to a position outside exposure position.
- Try exposure.
- No exposure?

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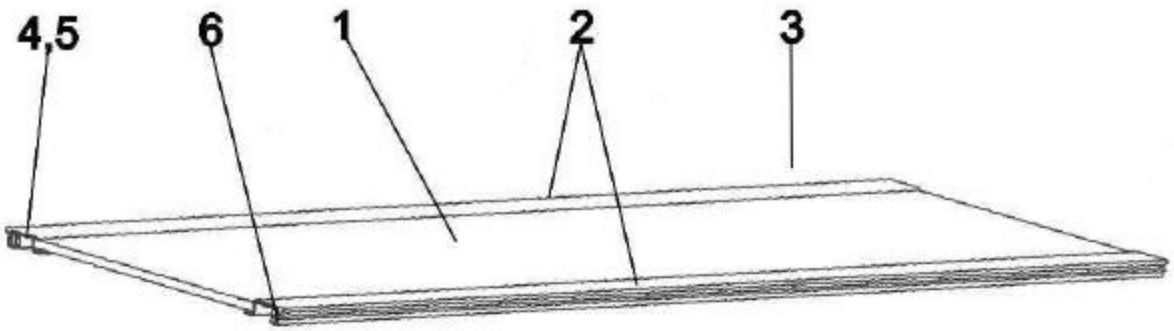
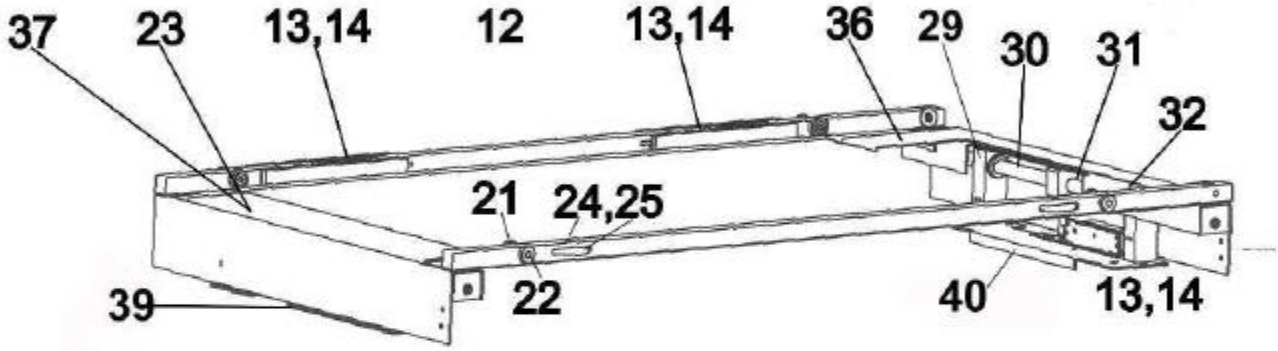
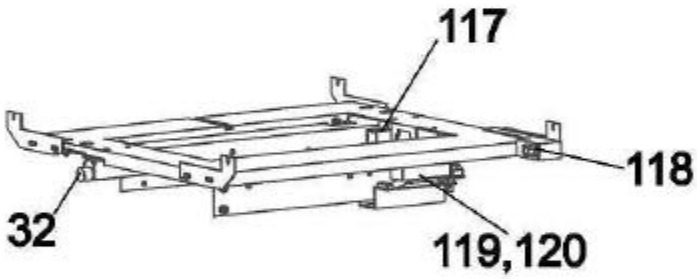
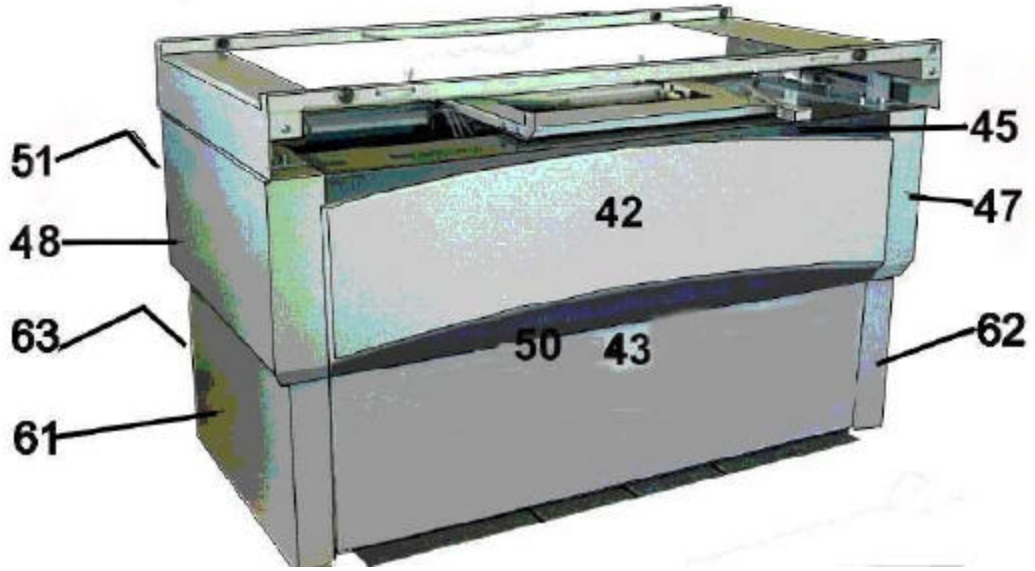
4.3 Spare Parts Table









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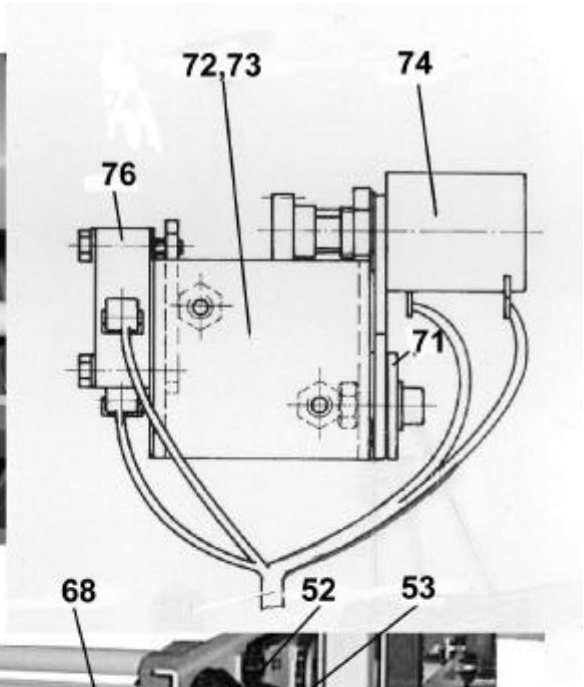

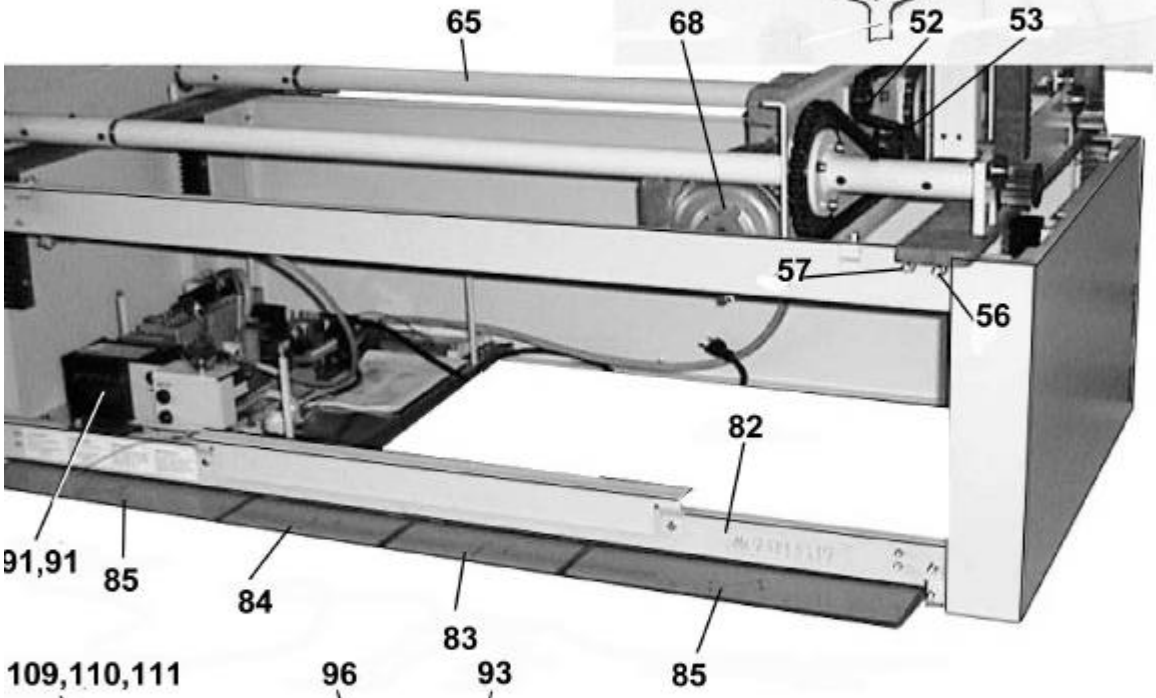

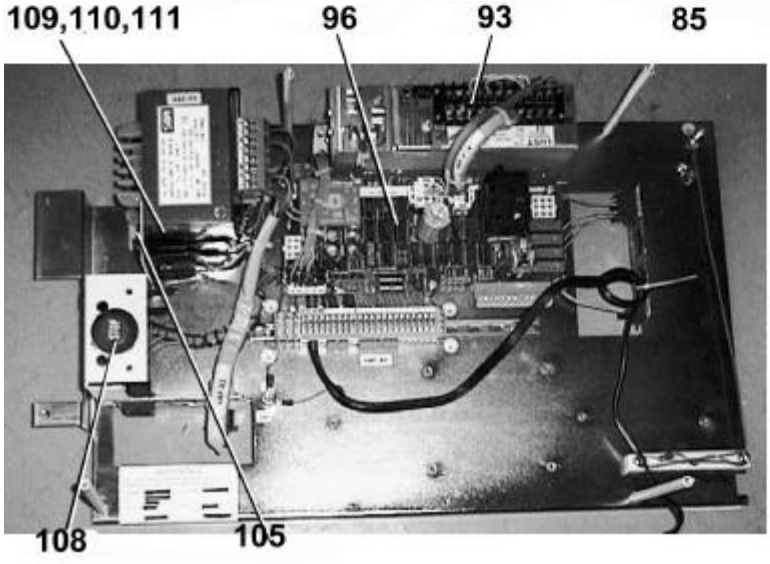

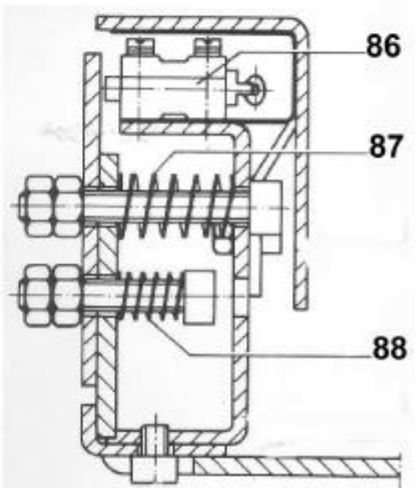

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4.4 Spare Parts List

Designation / Order No.

NOTE:

Defective parts must only be replaced by genuine spare parts as listed below. For shipment of spare parts, always specify serial number of equipment and full ordering number(s). Parts or part assemblies may only be replaced by the manufacturer or parties expressly authorized. See also chapter on "Safety Procedures".

Item	Designation	Ordering No.
1	Table top	0622 0548
2	Profile rail	0622 0549
3	Frame	0622 0541
4	Stop	0622 0550a
5	Bumper	0005 0164g
6	Stop	0622 0550b
7		
8		
9		
10		
11		
12	Frame	0622 0501
13	Solenoid	0006 0603
14	Laminated Spring	0622 0531
15		
16		
17		
18		
19		
20		
21	Bearing with bushing	0622 0556
22	Bearing with eccentric	0622 0555
23	Bearing with bushing	0622 0557
24	Shaft	0622 0515
25	Plastic roller	0622 0514
26		
27		
28		
29	Bearing block	0622 0085a
30	Guide shaft	0622 0528
31	Bearing Block	0622 0522b
32	Bumper	0005 0108
33	Bearing LBAR 20	0005 0191a
34	Snap ring 32x1.5 DIN 471	2200 0223
35		
36	Cover	0622 0523
37	Cover	0622 0526
38		

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Item	Designation	Ordering No.
39	Bridge	0627 0828a
40	Bridge	0627 0828b
41		
42	Cover panel, Front	0627 0845
43	Cover panel	0627 0839a
44		
45	Bridge, Front	0627 0834
46	Bridge, Rear	0627 0156a
47	Outer Side Panel	0627 0830a
48	Outer Side Panel	0627 0830b
49		
50	Bridge, Front	0627 0835
51	Cover, rear	0627 0836
52	Track-connecting tool	0627 1244
53	Chain	2300 0027
54		
55		
56	Bearing with eccentric Bushing	0627 0119
57	Bushing	0627 0140
58	Cable Protection Cover	0627 1265
59		
60		
61	Side frame	0627 1155a
62	Side frame	0627 1155b
63	Back cover	0627 1152
64		
65	Toothed Rack Drive II	0627 1200
66		
67		
68	Drive Motor (230 V) comp.	0627 1205
69		
70		
71	Terminal strip	0627 1334
72	Height measuring unit	0627 1130
73	Holder for Potentiometer	0627 1133
74	Potentiometer, Cpl.	0627 1136
75		
76	Switch with lever	0006 0616ba
77	Rackholder	0627 1320
78	Toothed Rack	0627 1330
79	Crank Handle	0627 1325
80	Eccentric Bushing Comp.	0627 0034
81		
82	Foot pedal switch, Comp.	0627 1140
83	Foot pedal switch, Short, "Up"	0627 1148
84	Foot pedal switch, Short, "Down"	0627 1146
85	Foot pedal switch "Brake"	0627 1144
86	Switch	0006 0079a
87	D-spring	0005 0042s
88	D-spring	0005 0042t
89		

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Item	Designation	Ordering No.
90	Transformer (230 V)	0627 1470
91	Transformer (115 V)	0627 1465
92		
93	Frequency Converter	0627 1461
94		
95	Component board Cpl.	0627 1450
96	Relay Board	0627 1460
97		
98	Motor Relay	0006 0667
99	Relay	0006 0286b
100		
101		
102		
103		
104		
105	Push button	0006 0084a
106		
107	Cable tie	0322 0076
108	Service Switch	0006 0260
109	Fuse holder	0006 0144
110	Cap for 5x20 fuse	0006 0152a
111	Cap for 6,3x32 fuse	0006 0152b
112		
113		
114	Bearing with eccentric	0632 0653
115	Bearing with bushing	0632 0657
116		
117	Bridge plug	0632 0307
118	Brake complete	0632 0615
119	Magnet	0006 0603
120	Spring	0632 0418

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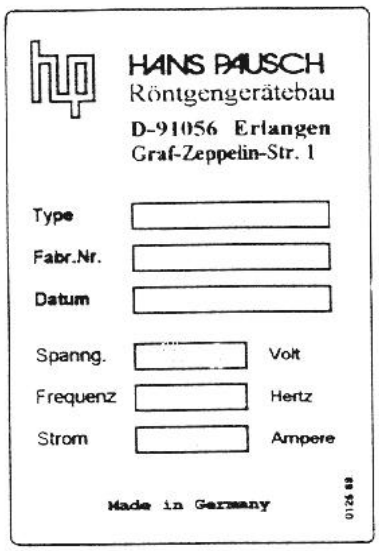
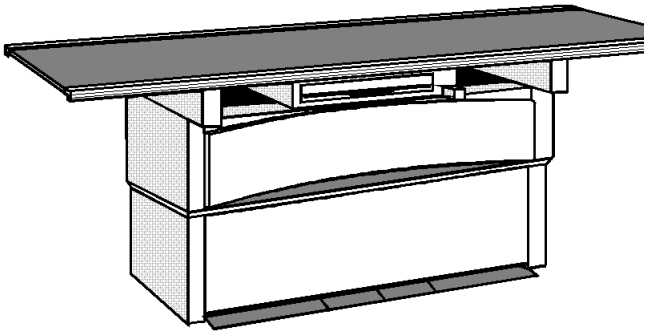
4.5 Name Plate Location:





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4.6 Maintenance Documentation

The maintenance according to the attached maintenance instructions has been carried out. Any parts replaced were original spare parts as shown on the list.

Replaced parts (List item no. only)

Date Name of company Signature

Replaced parts (List item no. only)

Date Name of company Signature

Replaced parts (List item no. only)

Date Name of company Signature

Replaced parts (List item no. only)

Date Name of company Signature

Replaced parts (List item no. only)

Date Name of company Signature

Replaced parts (List item no. only)

Date Name of company Signature

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Subject to technical alterations TV / Ru

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